

# Medical ethics questions of COVID-19 vaccination in pregnant and lactating women in East Asia and Oceania

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## Abstract

We aimed to investigate some of the medical ethics issues that characterize the COVID-19 vaccination phase in pregnancy and breastfeeding. A literature search was conducted using PubMed, Scopus, Web of Science, focusing mainly on the countries of East Asia and Oceania. Vaccination during pregnancy and breastfeeding appears to help protect babies from COVID-19 by enabling antibodies to pass from mother to baby. However, individual countries of the same continent may adopt conflicting policy positions. Not only that, indications on the type of vaccine sometimes vary, depending on whether a woman is pregnant or breastfeeding. In this review we have taken into consideration the policy positions on pregnancy and lactation by country and type of Covid-19 vaccine in East Asia and Oceania. Ten out of the 18 countries considered (representing more than two thirds of the population of East Asia and Oceania) provide different vaccine indications for pregnant and breastfeeding women. Can this diversity of recommendations be seen as a form of optimal protection for women in these categories, or does it suggest that some countries have taken a defensive position to avoid compensation claims in the event of complications? Is it ethically correct to leave questions concerning informed consent open? Misinformation during a health crisis leaves people without protection and with increased vaccine hesitancy, especially for vulnerable populations in hard-to-reach areas of East Asia and Oceania. *Clin Ter 2024; 175 (1):68-72 doi: 10.7417/CT.2024.5035*

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## Introduction

In Asian and Oceanian countries, various studies have been conducted to understand COVID-19 vaccine acceptance/hesitancy.<sup>1</sup> In East and Southeast Asia, the overall acceptance rates among the general public have been considerably high compared to various countries in the Middle East, Russia, Africa, and Europe.<sup>2</sup> Vaccine hesitancy in some categories of adults has been a significant obstacle in the

battle against COVID-19, and the public's trust in official information sources has influenced their vaccination uptake.<sup>3</sup> Concerns about vaccine administration among pregnant and lactating women, due to a lack of conclusive data on the safety and efficacy of COVID-19 vaccines for these target populations, have been the subject of international debate. Most countries initially recommended offering the vaccination to nursing mothers and pregnant women only in cases where they were at increased risk of exposure to the virus (e.g. migrants in high-income countries). These recommendations included individual benefit/risk assessments, which required consultations with healthcare professionals.

Data show that receiving an mRNA COVID-19 vaccine during pregnancy reduces the risk of severe illness and other adverse health effects from COVID-19 in the adult. Recent studies have compared pregnant women who received an mRNA COVID-19 vaccine with those who did not. Researchers found that COVID-19 vaccination was effective at reducing the risk of becoming very sick from COVID-19.<sup>4,5</sup> Other studies have shown that by reducing the risk of severe illness in pregnant women, COVID-19 vaccination might also help prevent stillbirths.<sup>6</sup> Furthermore, vaccinating against COVID-19 during pregnancy appears to help protect babies from COVID-19 by enabling antibodies to pass from mother to baby.<sup>7</sup>

Regarding lactation, there is evidence that the administration of a COVID-19 vaccine is safe and poses no additional risk to the breastfeeding woman or the breastfed baby. After vaccination of the mother during the lactation period, antibodies appear in the milk, which could protect the infant against COVID-19.<sup>8</sup>

In this paper authors aimed to investigate some of the medical ethics issues that characterize the COVID-19 vaccination phase in pregnancy and breastfeeding.

## Methods

A literature search was conducted using PubMed, Scopus, Web of Science. Furthermore, the institutional websites of the main countries in East Asia and Oceania have been

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evaluated. For each country, the level of recommendation was recorded for each country, regarding pregnant women, dividing the items into: “Recommended for some or all”, “Allowed”, “Allowed with qualification”, “Not recommended” and “Not recommended but with exceptions”.

The research focused on the main types of vaccines by manufacturer. The vaccines examined for individual countries are summarized in Table 1 and Table 2.

**Results**

All studies confirm that in late 2021 and early 2022, many countries updated interim indications by recommending a dose of mRNA vaccine, as a booster of a primary vaccination, for pregnant women in their second or third trimester who wished to be vaccinated. The recommendation took into account the abundant and growing evidence

regarding the safety of vaccination in pregnancy, both for the fetus and for the mother.<sup>9</sup> Nevertheless, individual countries of the same continental area sometimes adopt conflicting policy positions on vaccination during pregnancy and breastfeeding. Here, we have taken into consideration populations in East Asia and Oceania.

The results on policy positions on pregnancy and lactation by country and type of Covid-19 vaccine in East Asia and Oceania are reported in Table 1 and Table 2.<sup>10</sup>

Ten out of the 18 countries considered (representing more than two thirds of the population of East Asia and Oceania) provide different vaccine indications for pregnant and breastfeeding women: China, the Fiji Islands, Indonesia, the Republic of Korea, Macao SAR China, Malaysia, the Philippines, Singapore, Taiwan, and Vietnam. For example, China currently recommends the Sinovac, Sinopharm, and CanSino vaccines during breastfeeding but not during pregnancy; Korea recommends the Oxford-AstraZeneca and

Table 1. Policy positions on pregnancy by country and type of Covid-19 vaccine in East Asia and Oceania.

Country/territory	Pfizer/BioNTech Comirnaty	Moderna COVID-19 vaccine	Oxford-AstraZeneca (Vaxzevria or Janssen Covishield) COVID-19 vaccine	Johnson & Johnson COVID-19 vaccine	Sinovac-CoronaVac	Sinopharm BBIBP-CorV	Gamaleya Sputnik V	CanSino Biologicals Convidencia	Novavax TAK-019
Australia	●	●	●						
Cambodia						●			
China					●	●		●	
Fiji		●	●						
French Polynesia	●			●					
Hong Kong SAR, China	●			●					
Indonesia	●	●			●				
Japan	●	●							
Korea, Rep.	●	●	●	●					
Macao SAR, China	●		●			●			
Malaysia	●	●	●	●	●		●	●	
Mongolia	●								
New Zealand		●		●					
Philippines	●	●	●	●	●	●	●		
Singapore	●	●			●				
Taiwan		●							
Thailand	●	●	●	●	●	●	●	●	
Vietnam	●	●	●	●		●	●		

Table 2. Policy positions on lactation by country and type of Covid-19 vaccine in East Asia and Oceania.

Country/territory	Pfizer/BioNTech Comirnaty	Moderna COVID-19 vaccine	Oxford-AstraZeneca (Vaxzevria or Covishield)	Johnson & Johnson COVID-19 vaccine	Sinovac-CoronaVac	Sinopharm BBIBP-CorV	Gamaleya-Sputnik V	CanSino-Biologics	Novavax-Covovax, TAK-019
Australia	●	●	●						
Cambodia						●			
China					●	●		●	
Fiji		●	●						
French Polynesia	●			●					
Hong Kong SAR, China	●			●					
Indonesia									
No vaccine product specified – all permitted									
Japan	●	●							
Korea, Rep.	●	●	●	●					
Macao SAR, China	●		●			●			

Country/territory	Pfizer/BioNTech Comirnaty	Moderna COVID-19 vaccine	Oxford-AstraZeneca (Vaxzevria or Covishield)	Johnson & Johnson COVID-19 vaccine	Sinovac-CoronaVac	Sinopharm BBIBP-CorV	Gamaleya-Sputnik V	CanSino-Biologics	Novavax-Covovax, TAK-019
Malaysia	●	●	●	●	●		●	●	
Mongolia	●								
New Zealand		●		●					
Philippines							●		
No vaccine product specified – all permitted									
Singapore	●	●			●				
Taiwan									
No vaccine product specified – all permitted									
Thailand	●	●	●	●	●	●	●	●	
Vietnam	●	●	●	●		●	●		

Janssen vaccines for breastfeeding women only; and Taiwan only allows Moderna during pregnancy, whereas any type of vaccine is allowed during lactation.

## Discussions

Close observation of these tables showing the individual policy positions adopted by different countries brings several questions to the fore, which today's scientific community needs to answer (but struggles to do so).<sup>11</sup>

Can this diversity of recommendations be seen as offering an optimal form of protection, or does it rather suggest that some countries have adopted a defensive position to avoid compensation claims in the event of complications? Just think of how defensive medicine has spread all over the world, even in this phase of the pandemic, with serious consequences for patients, doctors and healthcare costs. Is it ethically correct to leave questions open to women who should be vaccinated? And how should information be provided? How does a medical professional explain to a woman of Chinese nationality that she is advised not to take the CanSino vaccine while conversely, the same vaccine is recommended to pregnant women in Thailand?

The COVID-19 epidemic has underlined the importance of and need for extreme health protection for fragile subjects and certain categories of people, including pregnant and breastfeeding women. However, although the safety and efficacy of the vaccine are now confirmed, health institutions, including universities and academic health facilities where health professionals work, should not be too hasty in imposing compliance with COVID-19 vaccination on such subjects without weighing up the various ethical concerns. One important ethical question is whether, given the discrepancies in health policies between different countries and even within the same country with regard to vaccination during pregnancy and breastfeeding, the consent of a woman who is in either of the two conditions is actually real and fully informed? In the opinion of the writers, divergent policy responses to vaccination could compromise a person's decision-making capacity (Simmons et al., 2022).<sup>12</sup>

In this phase of the pandemic, sector experts must explain the safety and efficacy of vaccination against COVID-19 by using a particular communicative approach with pregnant and breastfeeding patients, with consideration for the emotional state of the woman, without failing to communicate the possible generic complications related to the administration of the vaccine. The psychological state of the pregnant or breastfeeding woman is often considered to be vulnerable and, therefore, particular care must be taken to ensure that an individual's choice is made in full awareness and with self-determination (Scendoni et al., 2022).<sup>13</sup>

Future studies should investigate the best pathways for disseminating health messages aimed at changing and/or encouraging individual health behaviors in a public health context. It may be important to model information and education around what appear to be different categories of women:

a) women generally wary of any vaccine, regardless of their condition;

b) women who hesitate about vaccines when new vaccines emerge, such as those produced during the COVID-19 pandemic;

c) those who are hesitant about pregnancy but not about breastfeeding or vice versa;

d) those who are generally vaccine confident;

e) those who are generally sure that they want the COVID-19 vaccine;

f) women who might have been sure about wanting to take the COVID-19 vaccine, either in pregnancy or during breastfeeding, but who are influenced by their partner, in which case the principle of self-determination is undermined.

An important ethical issue, which has not been sufficiently addressed so far, concerns the rights of the newborn. After birth, every baby has the right to be protected from disease, first of all through nutrition from breast milk, and also through any prevention measures that current scientific knowledge is able to indicate (vaccinations, protection from smoking and pollution, guarantee of all necessary assistance and parental care). A mother's breastmilk provides the nutrition that the newborn needs, along with the mother-to-infant transfer of anti-SARS-CoV-2 antibodies after maternal vaccination during breastfeeding (Whited and Cervantes, 2022)<sup>14</sup>. Taking into account the principle that both parents must guarantee the rights of their newborn, the decision to protect through breastfeeding should be made jointly with the father, who shares parental authority.

On the other hand, to avoid situations of misunderstanding and to promote informed choices, the member states of a community such as East Asia and Oceania should homogenize guidelines and recommendations for vaccination during pregnancy and breastfeeding. Misinformation during a health crisis leaves people without protection and with increased vaccine hesitancy.

The nature of the COVID-19 pandemic and evidence on vaccine safety, efficacy, and effectiveness continue to evolve (Hillary et al., 2023), including with respect to variants of concern, boosters, durability of protection, and authorization of new vaccines.<sup>15</sup> Therefore, global health experts need to provide accurate, evidence-based information, with a focus on hard-to-reach areas and the most vulnerable populations in Asian and Oceanian countries. This is the main challenge in facing any future pandemics in the best possible way, guaranteeing maximum vaccination protection in general and for pregnant and breastfeeding women in particular (Kons et al., 2022).<sup>16</sup>

## Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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